REMARKS/ARGUMENTS

Claim 9 is pending in this application. By this Amendment, Applicant cancels claims 5-8 and adds claim 9.

Claims 6-8 were canceled since these claims were directed to non-elected species and there are no generic claims. Applicant reserves the right to file a Divisional Application to pursue prosecution of claims 6-8.

The Title of the Invention was objected to for allegedly not being descriptive. Applicant has amended the Title of the Invention as suggested by the Examiner. Accordingly, Applicant respectfully requests reconsideration and withdrawal of this objection.

Claim 5 was rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Inoue et al. (U.S. 5,118,982). Claim 5 has been canceled and replaced by claim 9.

Claim 9 recites:

> "A manufacturing method for manufacturing an acceleration sensor, comprising the steps of:
>
> preparing 4n planar green sheets made of piezoelectric ceramic, where n is an integer greater than or equal to 1;
>
> **applying a conductive paste on a surface of at least one of the green sheets at positions corresponding to a center portion and two end portions of individual piezoelectric elements in the longitudinal direction, so as to form a plurality of segmented electrodes for a plurality of piezoelectric elements**;
>
> applying a conductive paste on a surface of at least one of the other green sheets such that the conductive paste is led to a position corresponding to one end of each of the plurality of piezoelectric elements in the longitudinal direction, whereby first lead electrodes are formed for the plurality of piezoelectric elements;
>
> applying a conductive paste on a surface of at least one of the other green sheets such that the conductive paste is led to a position corresponding to the other end, opposite to the one end, of each of the plurality of piezoelectric elements in the longitudinal direction, whereby second lead electrodes are formed for the plurality of piezoelectric elements;

stacking the green sheets such that the segmented electrodes and the first lead electrodes or the second lead electrodes are alternately arranged in such a manner that one of the segmented electrodes is positioned between a pair of the first lead electrodes and the second lead electrode and such that the electrode disposed in the middle in the thickness direction is one of the segmented electrodes, and stacking a green sheet without conductive paste as the topmost layer so as to obtain a stacked body;

firing the stacked body to produce a piezoelectric ceramic fired compact which includes a plurality of piezoelectric layers and simultaneously baking the conductive paste;

forming polarization electrodes on front and back faces of the piezoelectric ceramic fired compact, the polarization electrodes being segmented into portions according to the positions corresponding to a center portion and both end portions of each piezoelectric element in the longitudinal direction;

applying DC electric fields between the polarization electrodes and the first and second lead electrodes, and between the segmented electrodes and the first and second lead electrodes to polarize the piezoelectric ceramic fired compact in the thickness direction such that the piezoelectric layers provided on both sides of the lead electrodes are polarized in opposite directions and such that the center portion and both end portions of the same piezoelectric layer are polarized in opposite directions;

interconnecting the polarization electrodes or removing the polarization electrodes and forming continuous electrodes, whereby main electrodes leading to ends of the piezoelectric elements which are different in the longitudinal direction are formed on the front and back faces of the piezoelectric element;

cutting the piezoelectric ceramic fired compact into individual piezoelectric elements; and

forming external electrodes on both end faces of the cut piezoelectric element and connecting the external electrodes to the lead electrodes formed inside the piezoelectric element and the main electrodes formed on the front and back faces of the piezoelectric element." (emphasis added)

With the unique combination of methods steps and features recited in Applicant's claim 9, Applicant has been able to provide a manufacturing method for efficiently manufacturing an acceleration sensor which is thin and small and which has a high

detection sensitivity (see, for example, the second full paragraph on page 2 of the originally filed specification).

In contrast to Applicant's claim 9, Inoue et al. teaches a method of manufacturing a thickness mode vibration piezoelectric transformer in which a plurality of continuous internal electrodes 131-133 are formed on green sheets 112-114. Inoue et al. fails to teach or suggest a step forming **any** segmented electrodes, and certainly fails to teach or suggest the step of "applying a conductive paste on a surface of at least one of the green sheets at positions corresponding to a center portion and two end portions of individual piezoelectric elements in the longitudinal direction, **so as to form a plurality of segmented electrodes for a plurality of piezoelectric elements**" (emphasis added) as recited in Applicant's claim 9.

In addition, since Inoue et al. clearly fails to teach or suggest a step of forming **any** segmented electrodes, Inoue et al. certainly fails to teach or suggest the steps of "stacking the green sheets such that **the segmented electrodes and the first lead electrodes or the second lead electrodes are alternately arranged in such a manner that one of the segmented electrodes is positioned between a pair of the first lead electrodes and the second lead electrode and such that the electrode disposed in the middle in the thickness direction is one of the segmented electrodes**, and stacking a green sheet without conductive paste as the topmost layer so as to obtain a stacked body" and "applying DC electric fields between the polarization electrodes and the first and second lead electrodes, and **between the segmented electrodes and the first and second lead electrodes** to polarize the piezoelectric ceramic fired compact in the thickness direction such that the piezoelectric layers provided on both sides of the lead electrodes are polarized in opposite directions and such that the center portion and both end portions of the same piezoelectric layer are polarized in opposite directions" and (emphasis added) as recited in Applicant's claim 9.

Furthermore, as disclosed in col. 9, line 32 through col. 11, line 48 of Inoue et al,

Inoue et al. teaches a method of manufacturing **only a single** piezoelectric transformer at a time. Although this method includes a step of cutting stacked green sheets to obtain a desired size and shape, since **only a single** piezoelectric transformer is being manufactured in the method of Inoue et al, Inoue et al. clearly fails to teach or suggest the step of "cutting the piezoelectric ceramic fired compact into individual piezoelectric elements" as recited in Applicant's claim 9.

Accordingly, Applicant respectfully submits that Inoue et al. clearly fails to teach or suggest the unique combination of method steps and features recited in Applicant's claim 9.

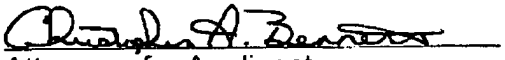
In view of the foregoing amendments and remarks, Applicant respectfully submits that Claim 9 is allowable.

In view of the foregoing amendments and remarks, Applicant respectfully submits that this application is in condition for allowance. Favorable consideration and prompt allowance are solicited.

The Commissioner is authorized to charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1353.

Respectfully submitted,

Date: December 30, 2004



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